

# EUROPEAN PATENT OFFICE

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TITLE : BIAXIALLY ORIENTED POLYESTER  
FILM

$$\text{相对标准偏差} = \frac{\sqrt{\sum_{i=1}^n (D_i - \bar{D})^2 / n}}{\bar{D}}$$

$$\bar{D} = (\sum_{i=1}^n D_i) / n \quad (\mu m)$$

ABSTRACT : PURPOSE: To obtain the title film small in void size, uniform in both surface roughness and surface irregularities and excellent in both slip and cracking resistance, by dispersing a small amount of specified spherical crosslinked acrylic particles in a polyester.

CONSTITUTION: A biaxially oriented polyester film prepared by dispersing 0.005~1wt.% spherical crosslinked acrylic particles of an average particle diameter of 0.1~4 $\mu$  and an aspect ratio (length/breadth) of 1.0~1.2 in a polyester such as polyethylene terephthalate. It is preferable that said spherical crosslinked acrylic particles have a narrow particle diameter distribution, and that the relative standard deviation which represents the steepness of distribution is 0.5 or below, especially, 0.3 or below. This relative standard deviation is represented by formula I [wherein  $D_i$  is the diameter ( $\mu$ ) of the circle of equal projected area of an individual particle,  $\bar{D}$  is the average (formula II) of the diameters of the circles of equal projected areas, and  $n$  is the number of the particles measured]. This film is small in void size, uniform in both roughness of the film surface and surface irregularities, and excellent in both slip and cracking resistance.

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